SHRF
SASKATCHEWAN
HEALTH RESEARCH
FOUNDATION

The power of Partnerships

2011-12
ANNUAL
REPORT

SHRF
SASKATCHEWAN
HEALTH RESEARCH
FOUNDATION

Vision

Building a healthy Saskatchewan through health research

Mission

The Saskatchewan Health Research Foundation contributes to a healthy province by funding and promoting excellence in health research, promoting the benefits of health research, and enhancing capacity, including securing funds to support excellent research and researchers.

Values

We believe health research:

- is the ethical search for truth, knowledge, and understanding about human health;
- is an investment that leads to benefits for all Saskatchewan residents in many areas including health, education and the economy;
- includes both basic and applied research; and
- encompasses many dimensions including biomedical science, clinical investigation, health services and systems research, and research into the determinants of population health.

We are committed to good governance, including:

- good stewardship for the resources entrusted to us; and
- the highest standards of public accountability.

We will maintain the highest standards of professional conduct, including...

- integrity and honesty;
- respect for diverse perspectives and approaches; and
- clear, open, honest and timely communication.

We will work co-operatively and collaboratively with others to:

- achieve mutual goals related to advancing health research in Saskatchewan; and
- ensure research findings are shared and used as widely as possible.

We strive for excellence and innovation in all our endeavours.

SHRF Staff

Left To Right: Irene Blum, Accountant; Karen Glazebrook, Funding Programs Manager; Pamela Riffel, Administrative Assistant, Information Systems; Lynn Nastiuk, Executive Assistant to the CEO; Trina Richman-Monar, Facilitator, Special Initiatives; Tanya Skorobohach, Administrative Assistant, Funding Programs; Patrick Odnokon, Impact Analysis Manager; Rodney Antonichuk, Director of Partnerships

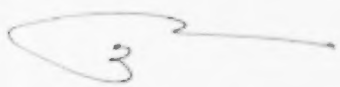
Front: June M. Bold, Chief Executive Officer

Message to the MINISTER

The Honourable Dustin Duncan
Minister of Health
Legislative Assembly
Regina, SK S4S 0B3

I am pleased to submit for your consideration the annual report of the Saskatchewan Health Research Foundation for the fiscal period April 1, 2011 to March 31, 2012.

Respectfully submitted,



Terry Baker
Board Chair

Table of CONTENTS

2 | Board Chair's Message
3 | CEO's Message
4 | Power of Partnerships
5 | Research Funding
18 | Creating a Supportive Environment
22 | Measuring Impact
27 | Strong Governance
31 | Financial Statements

Board Chair's MESSAGE

We often talk about enterprise, economy and innovation in the research world. Health research is no different. But a significant part of this discussion requires us to remain focused on who "peoples" the enterprise, economy and innovation.

Our Board believes that SHRF's strength lies in its ability to initiate and sustain dialogue. Researchers, institutions, government and the broad health community need to establish a vernacular that focuses on health solutions for the people of Saskatchewan. We need to share and use the knowledge that is being gained through a sustained investment in health research.

The people of Saskatchewan – you and I – need to be engaged with stories of success and the impact that health researchers have on improving our health and health care system.

In a world where health care budgets are consuming larger and larger percentages of total provincial budget, perhaps, counter-intuitively, the time is right for strengthening funding in health research. Our board has worked diligently this year to prepare SHRF to make a case for support from current and new sources of funding. Without health research, fundamental change to health delivery, health systems policy and patient-focused health care innovations will be difficult to achieve.

Only through applying best practices, new treatments and the positive results of research can the health cost curve be contained. SHRF and the health researcher community of Saskatchewan can contribute to this challenge. An investment in health research is a valuable component to the systemic improvement of health care in our province and is an essential ingredient for healthy people to live healthy lives.

To undertake all of the above, the Board has identified three crosscutting business strategies: build partnerships with public and private sector organizations to increase resources for health research (trusted support); lead and co-ordinate strategic health research opportunities for the province (strong science); and facilitate linkages across research, innovation and practice (valued impact).

The world continues to change. Patients demand better treatment. The health system continues to challenge itself to provide service in smarter ways. While it's not the only solution, health research is a critical component of success.

On behalf of the Board, I'd like to thank the staff at SHRF for its continuing efforts to tackle new projects, adapt to evolving national funding priorities, and manage major opportunities in health research outcomes for the people of Saskatchewan.

Every day, SHRF demonstrates its role as a team player. It believes in the power of partnerships, and continues to foster an environment where all the players in the health research enterprise can achieve success and be supported.

Terry Baker
Board Chair

CEO's MESSAGE

Although our theme for this year's report is "the power of partnership," it's an approach SHRF lives every day. Sometimes we can take these activities for granted; they become accepted as the way we work. Because it is so close to who we are as an agency and embedded in everything we do, I believe it's an appropriate time to celebrate our approach to partnerships and be a champion of our partners. Perhaps our desire to shine a stronger light on the power of partnerships this year came from the energy we created through our strategic planning process.

The plan has placed additional value in SHRF's partnership process through three clear imperatives. First, we will maintain and grow our constituents' trust in us to increase the pool of investment dollars available to support and sustain Saskatchewan's growing health research enterprise. Second, we will work with our many partners and stakeholders to strengthen health research and build processors and programs that support strong science. And third, we will work with all constituents in Saskatchewan's health research sector to share and use the knowledge gained from health research, improving our health system and economy and generating benefits for the people of our province.

Early into the term of the plan, 2011-12 demonstrated that results from our partnership efforts take many forms, from our day-to-day mandated business of granting health research dollars, to managing larger, topically sensitive files.

In 2011-12, SHRF awarded nearly $4 million to support health research in Saskatchewan to researchers investigating important topics including childhood arthritis, breast cancer, depression and dementia, bone strength, vaccine delivery, mental health, and exercise tolerance in older adults.

The funds include $1.3 million awarded through our New Investigator Establishment and New Investigator Equipment grant programs, which have a strong developmental focus, aiming to build health research capacity and help new Saskatchewan researchers enter the highly competitive national research scene. Another $700,000 was awarded through our Postdoctoral Research Fellowship program, which supports individuals who are pursuing advanced research training with experienced mentors. These are our partners of the present and the future.

Nationally, we partnered with CIHR on the Regional Partnership Program and the Partnerships for Health System Improvement (PHSI) Program, investing $1.3 million in these federal parterships. PHSI supports teams of researchers and decision-makers conducting applied health services research useful to health system managers and or policy makers.

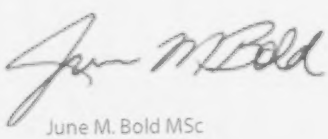
SHRF also committed to partnering with CIHR on Innovation Team Grants in Community-Based Primary Healthcare (CBPHC). This research funding initiative was announced January 20, 2012 in Saskatoon by the Honourable Leona Aglukkaq, Minister of Health, and the Honourable Don McMorris, Saskatchewan Minister of Health. The focus of this opportunity is to fund teams undertaking programmatic, cross-jurisdictional and interdisciplinary research to develop, implement, evaluate, and compare innovative models for chronic disease prevention and management in CBPHC and improving access to appropriate CBPHC for vulnerable populations.

Saskatchewan continued to take a leadership role in Canada in the areas of spinal cord injury research and disability funding with the commitment by the provincial government of more than $4.3 million for a comprehensive five-year Saskatchewan-based initiative, in partnership with the national Rick Hansen Institute (announced March 15, 2011). Included was $1 million over five years targeted to spinal cord injury research in Saskatchewan, being managed by SHRF.

SHRF continued to support the Province of Saskatchewan's interest in developing a process to fund clinical trials on Multiple Sclerosis. The review process was completed and announced on June 29, 2011. Although, our expert scientific review panel assessed the proposed research, both individually and as a group, and concluded that no proposal should be funded at that time, SHRF has continued to maintain dialogue with other national and provincial efforts on this complex and sensitive health issue.

The result of these and other partnership efforts goes beyond the dollars available. These opportunities provide value to health researchers in all disciplines in Saskatchewan. Beyond the grant process and funding envelope horizon, these opportunities aim to assist in the ongoing transformation of health services.

The power of the health research sector to continuously improve the health system and contribute to healthier populations, remains, at its core, partnerships. Yes, at SHRF, we sustain and steward partnerships every day. Let's take the time to celebrate them as well!



June M. Bold MSc
Chief Executive Officer

The power of Partnerships

The world of health research is an interdependent one. Saskatchewan institutions, health researchers, and SHRF are linked to developments in Western Canada, Canada, the world, as well as specific health interests. In this global and broad health context, it's easy to understand that success requires partnerships.

Saskatchewan has many examples of what can be achieved when strong partnerships exist. We are a leader in infectious disease research, agricultural biotechnology, community-based and population health research, and human growth and development research. Clinical research, or patient-oriented research, remains a vital link to everyone's health and to health care delivery.

For SHRF, that's the power of partnerships – the ability to translate knowledge from an idea or a research bench, to the bedside and to better health.

Our mandate provides SHRF with strong guidance, allowing us to focus our attention on weaving together our research funding and partnership programs to advance health research funding in Saskatchewan. Our partners are key contributors to creating a supportive environment for health research in Saskatchewan. Partners collaborate on achieving systems of measurement that demonstrate impact and relevance. Many representatives from our partnering organizations continue to offer their expertise and knowledge to SHRF thereby strengthening the governance of our Foundation.

SHRF aims to be a catalyst. Working together, the health research sector can focus resources, both human and financial, on matters of importance to the health of Saskatchewan people and demonstrate our province's ability to lead the way in the areas we are strong in.

At SHRF, we nurture partnerships. We value partnerships. In 2011-12, our successes and achievements were built on the power of partnerships

RESEARCH FUNDING

Our funding programs are important tools for helping us fulfill various aspects of our mandate and for contributing to the themes outlined in the provincial Health Research Strategy. For example, SHRF allocates funds for research in the provincial priority areas, supports knowledge translation though our Research Connections program, and builds health research capacity by supporting early career development, training, and collaborative groups of researchers working towards a common goal.

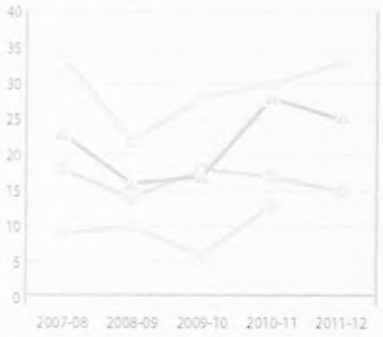
Funding programs at SHRF fall into two categories: SHRF Programs and Partnership Programs. SHRF Programs are administered solely by SHRF. Partnership Programs are collaborations with other funding agencies and organizations, and may be administered by SHRF or our funding partners.

SHRF Programs

SHRF funding programs have a strong developmental focus, helping Saskatchewan researchers to enter the highly competitive national scene and contribute to an overall supportive health research environment in the province. We continue to encourage and support a broad range of human health research including basic biomedical science, clinical research, health services and system research, and research into the cultural, social and environmental determinants of population health.

Our Board approved $2.5 million for new research grants and fellowships in 2011-12.

Number of Applications by Program and Year



Success Rates by Program and Year

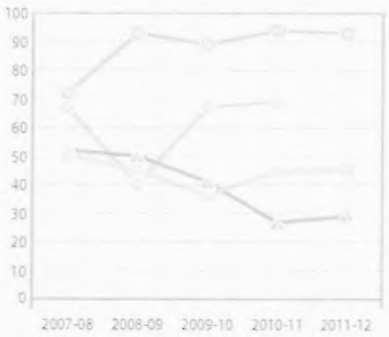


Table 1: SHRF Applications Received, Recommended, and Awarded 2011-12

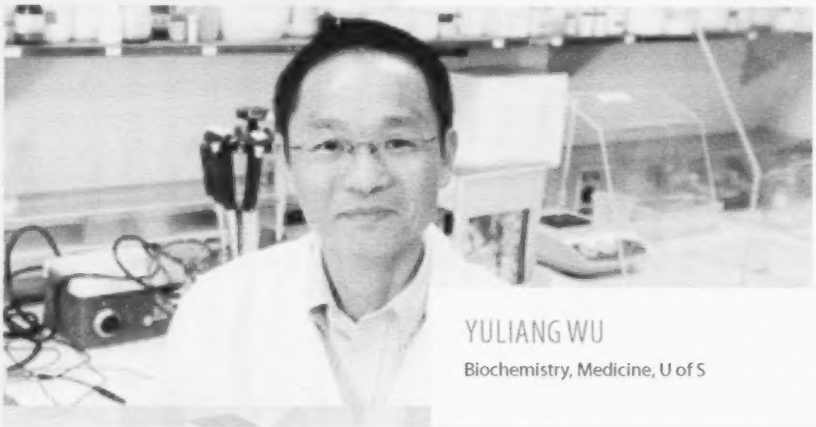
SHRF Programs	Received		Recommended		Awarded*		
	No.	Amount ($)	No.	Amount ($)	No.	Term (yrs)	Amount ($)
Postdoctoral Research Fellowships	25	2,500,000	15	1,500,000	7	2	700,000
New Investigator Establishment Grants	33	2,509,966	18	1,359,083	15	2	1,119,163
New Investigator Equipment Grants	16	439,419	6	165,242	5	n/a	139,850
Research Connections Grants	15	79,636	14	73,800	14	n/a	70,300
Health Research Group Grants**	0	0	0	0	0	n/a	0
Spinal Cord Injury Research Grants	5	579,000	4	456,450	4	2	456,450
Total	94	6,108,021	57	3,554,575	45		2,485,763

* Awarded amounts are for the full term of the grant (see also Grant Selection Process section).
** No competition held in 2011-12

New Investigator Establishment and Equipment Grants

These grants provide up to $40,000 per year for two years to university faculty who are new or newly resident in Saskatchewan to help them establish independent health research programs within the province, and achieve the research productivity necessary to obtain longer term and more substantial funding from national and other external agencies. Recipients may also apply for New Investigator Equipment Grants of up to $30,000 over a period of six months to acquire major equipment essential to their research that is not available through other means.

2011 TOP RESEARCHER AWARD: Biomedical New Investigator Establishment



YULIANG WU

Biochemistry, Medicine, U of S

Structural and Functional Characterization of the FANCJ Helicase Defective in Fanconi Anemia and Breast Cancer

DNA is the biological macromolecule that contains the genetic instructions in all living organisms. It is prone to spontaneous instability as a result of normal metabolic activities and is under constant attack from environmental factors such as X rays, ultraviolet radiation from the sun and many chemical agents. Incidents of breast cancer and Fanconi anemia sometimes occur when the cells are unable to repair the damaged DNA. Dr. Yuliang Wu is studying a particular protein that may be contributing to the DNA's instability.

The protein in question, the Fanconi anemia group J protein, typically contributes to the repair of the DNA. In cases where breast cancer or Fanconi anemia have been diagnosed, Dr. Wu has identified changes, or mutations, in the protein. He and his team of researchers are conducting further research into the changes to determine the potential structural defects.

Using biochemical and cellular approaches, Dr. Wu aims to understand how particular protein changes can lead to breast cancer and Fanconi anemia. This work constitutes an important step toward understanding the development of these diseases and will potentially lead to a therapeutic strategy for targeting the mutated protein.

Summaries of all awarded New Investigator Establishment Grants and accompanying Equipment Grants are available online at www.shrf.ca.

2011 TOP RESEARCHER AWARD: Socio-Health New Investigator Establishment

SANDRA WEBBER

Physical Therapy, Medicine, U of S

Determining the safety and efficacy of using a lower body positive pressure treadmill to enhance exercise tolerance in older adults after total knee replacement

Arthritis is a prevalent chronic health condition in Canada, affecting more than 4.2 million people. Total associated costs reach $6.4 billion annually. Even after joint replacement, despite the significant resources expended, the majority of patients do not regain full function or reach physical activity levels consistent with healthy individuals. Dr. Sandra Webber is investigating a method of rehabilitation that may improve recovery rates.

Recently, specially designed treadmills have aided in the rehabilitation of young athletes. The same treadmills may prove valuable for older individuals suffering from arthritis pain because they provide weight support using positive pressure chambers to reduce joint forces and muscle requirements. While reductions in heart rate and increases in blood pressure have been demonstrated in younger people, no controlled studies have been conducted to measure responses in older individuals. Dr. Webber plans to determine cardiovascular and metabolic responses of patients aged 60 to 75 under positive pressure conditions. She and her team will also compare walking tolerance and gait biomechanics under full and partial weight conditions.

Dr. Webber is establishing the cardiovascular safety and musculoskeletal benefits of using the lower body positive pressure treadmill in older patients after total knee replacement. She hopes her research will lead to the development of new protocols to promote physical activity earlier after joint replacement and stimulate other rehabilitation applications relevant to older adults.

NEW INVESTIGATOR ESTABLISHMENT AND EQUIPMENT GRANTS

Erika Dyck
History, Arts and Science, U of S
From asylum to community: A history of Saskatchewan's mental health services in Weyburn

Mark Fenton
Respirology, Critical Care and Sleep Medicine, Medicine, U of S
Spirometric evaluation of Saskatchewan First Nations adults

Rebecca Genoe
Kinesiology and Health Studies, U of R
The role of leisure in coping with COPD

Azita Haddadi
Pharmacy and Nutrition, U of S
Development of nanoparticle-based cancer vaccines

Simonne Horwitz
History, Arts and Science, U of S
Looking back to the future: A history of HIV/AIDS in Saskatchewan

James Johnston*
Mechanical Engineering, Engineering, U of S
Enhancing predictions of distal radius bone strength: A validation study linking mechanical testing, finite element modeling and advanced imaging

Soo Kim
Physical Therapy, Medicine, U of S
Rotator cuff tears in seniors: An integrated approach using computer modeling and ultrasonography to improve prevention and treatment

Kerri Kobryn
Microbiology and Immunology, Medicine, U of S
Mechanism of telomere resolution in the Lyme disease spirochete

Alison Oates*
Kinesiology, U of S
Investigating the effect of haptic input on balance control during walking

Bogdan Popescu*
Anatomy and Cell Biology, Medicine, U of S
Metal involvement in immunopattern III multiple sclerosis

Natalie Shiff*
Pediatrics, Medicine, U of S
Validation of administrative data diagnoses of chronic childhood arthritis in Saskatchewan

Sandra Webber*
Physical Therapy, Medicine, U of S
Determining the safety and efficacy of using a lower body positive pressure treadmill to enhance exercise tolerance in older adults after total knee replacement

Aaron White
Vaccine and Infectious Disease Organization, U of S
Development of a traveler's vaccine against Salmonella enterica based on a novel polysaccharide capsule

Kristi Wright
Psychology, Arts, U of R
Feasibility and pilot study of an interactive, internet-delivered prevention program for preoperative anxiety in children

Yuliang Wu
Biochemistry, Medicine, U of S
Structural and functional characterization of the FANCJ helicase defective in fanconi anemia and breast cancer

* indicates accompanying Equipment Grant.

Postdoctoral Research Fellowships

This program offers a full-time training opportunity for high-quality candidates in health-related fields. Fellows are supervised by experienced, active researchers to further develop their research skills and equip themselves for a career in health research. The program offers a salary stipend of $45,000 per year for two years and a research allowance of $5,000 per year for up to two years. A top-up incentive award of $5,000 per year for up to two years is available for successful SHRF applicants who are also successful in obtaining a Tri-Council Postdoctoral Fellowship to be held in Saskatchewan.

SHRF partners with agencies to increase the amount of funding available and build capacity in specific research areas. In 2011-12, SHRF offered two partnered Postdoctoral Research Fellowship opportunities: The Terry Fox Postdoctoral Fellow (co-funded by the Terry Fox Research Institute) and the Crohn's and Colitis Postdoctoral Fellow (co-funded by the Crohn's and Colitis Foundation of Canada). No partnered fellowships were awarded in 2011-12.

2011 TOP RESEARCHER AWARD: Biomedical Postdoctoral Research Fellowship

SANDRA SCHULZ

Vaccine and Infectious Disease Organization, U of S

Supervisor:
Sylvia van Drunen Littel-van den Hurk

Characterization of the effect of HCV on human dendritic cells

An estimated 180 million people worldwide are infected with hepatitis C virus, a major cause of chronic liver disease. Three to four million are newly infected each year. Hepatitis C virus is widespread among Canadian First Nations people, particularly in Saskatchewan. The current treatment – a combination of interferon and ribavirin – is often ineffective. Dr. Sandra Schulz is looking for new, more reliable treatments.

It has been found that, during persistent hepatitis C virus infection, a population of dendritic cells appears to be functionally impaired. As dendritic cells are the most important immune cells for the introduction of a primary immune response to infection and vaccination, Dr. Schulz's research objective is to determine if a particular enzyme, known to inhibit the development of an immune response, is modified in the dendritic cells of hepatitis C virus patients.

Dr. Schulz hopes her research will contribute to our understanding of why the majority of hepatitis C virus patients do not clear infection and respond poorly to vaccination. Such a discovery has the potential to identify inhibitors that, when used in conjunction with drug therapy or vaccination, will be of significant value in treating patients with hepatitis C virus.

Summaries of all awarded Postdoctoral Research Fellowships are available online at www.shrf.ca.

2011 TOP RESEARCHER AWARD: Socio-Health Postdoctoral Research Fellowship

RAMI AL-NAZER

College of Kinesiology, U of S

Supervisors:
Joel Lanovaz, Saija Kontulainen, James Johnston

A novel computational approach to investigate in vivo stress/strain distribution at the knee joint during physical activity

Osteoarthritis is a common chronic joint disease that affects 10 per cent of the population in Canada and almost 14 per cent in Saskatchewan. The knee is the most common joint affected and is considered to be one of the leading causes of disability and discomfort among seniors. Dr. Rami Al-Nazer is building a knee joint model that will provide insight into strain distribution during physical activity.

Strains within the bone tissue play a major role in bone (re)modeling. Dr. Al-Nazer has proposed that constructing a flexible knee joint model will provide data regarding the stress/strain distribution at times of increased physical activity. Currently such a model does not exist. To build the model, Dr. Al-Nazer and his team are using state-of-the-art human musculoskeletal modeling software, accompanied by medical imaging, bone mechanical testing and motion capture. The model will be used to simulate several daily activities to identify the optimal knee motion for maintaining healthy knee joints and preventing the progression of osteoarthritis.

By examining stress/strain distribution at the bone near the joint surface, Dr. Al-Nazer will improve the understanding of knee joint musculoskeletal disorders. This knowledge will contribute to the development of treatments and prevention strategies that preserve normal joint mechanics. The model can further be used to investigate factors that increase the risk of developing osteoarthritis and may assist in the clinical success of knee joint replacement design.

POSTDOCTORAL RESEARCH FELLOWSHIPS

Rami Al-Nazer
(Supervisors: Joel Lanovaz, Saija Kontulainen, James Johnston)
Kinesiology, U of S
A novel computational approach to investigate in vivo stress/strain distribution at the knee joint during physical activity

Mark Hackett
(Supervisors: Graham George, Ingrid Pickering)
Geological Sciences, Arts and Science, U of S
Synchrotron studies of complex biochemical mechanisms during cerebral ischemia and neurodegeneration

Xiangfei Meng
(Supervisors: Carl D'Arcy, Debra Morgan)
Psychiatry, Medicine, U of S
Connections – Exploring the links between depression and dementia

Sandra Schulz
(Supervisor: Sylvia van Drunen Littel-van den Hurk)
Vaccine and Infectious Disease Organization, U of S
Characterization of the effect of HIV on human dendritic cells

Stefania Starnino
(Supervisor: Jo-Anne Dillon)
Vaccine and Infectious Disease Organization, U of S
Molecular typing of Neisseria gonorrhoeae and Chlamydia trachomatis from non-culture specimens in Saskatchewan: Do co-infections matter?

Vickneswary Tagore
(Supervisor: Lisa Lix)
Public Health, U of S
Novel statistical methods for chronic disease episodes of care

Tracy Wilson-Gerwing
(Supervisor: Alan Rosenberg)
Pediatrics, Medicine, U of S
Novel Pain and Inflammation Networks in Juvenile Idiopathic Arthritis (NoPAIN in JIA)

Research Fellowship Top-Up Incentive Award

Michael (Jake) Pushie
Geological Sciences, Arts and Science, U of S
The prion protein's role in brain metal homeostasis

Spinal Cord Injury Research Grants

On March 15, 2011, the Government of Saskatchewan announced it would provide $4.3 million to support Saskatchewan's Rick Hansen Institute Initiative (RHII) – a suite of programs intended to enhance the lives of people in Saskatchewan living with spinal cord injuries. One million dollars of this funding over five years was targeted to support spinal cord injury (SCI) research in Saskatchewan. SHRF was asked by the Government of Saskatchewan to manage the research funding, including a competitive process for allocating funds and normal grants management for successful proposals.

In the spring of 2011, SHRF completed its work with an advisory panel to define the research parameters and timelines for this opportunity, and released the first Call for Proposals on June 30, 2011. Based on advisory panel recommendations, the Call for Proposals welcomed proposals supporting translational research in two streams: clinical and health services (grants up to $100,000 per year for two years); and biomedical proof of principle research (grants up to $50,000 per year for two years). Both research streams are intended to focus on improving health outcomes for SCI patients and move research findings into policy or practice.

After a rigorous peer-review process, three biomedical grants and one clinical health services grant were awarded. All funded research aligns with at least one of the following four Rick Hansen Institute objectives: reduction of incidence and severity of paralysis; improve health care outcomes; reduction of long term cost; and improve quality of life for those living with SCI.

Based on available resources for this special program, the next competition is expected in 2013.

DR. GARY LINASSI

Physical Medicine and Rehabilitation, Medicine, U of S

Health care services and needs in spinal cord injury after acute care

People with traumatic spinal cord injury often face health complications that, if not prevented or treated early, can lead to significant illness or death. In addition to these unique health difficulties, they also must overcome the diverse challenges to their health and well-being that are associated with living in the community. Dr. Gary Linassi is evaluating the potential for a provincial outreach program that will ensure a continuum of care for people with traumatic spinal cord injury after their transition into the community.

As a first step towards achieving his vision, Dr. Linassi is identifying the needs of Saskatchewan people who have traumatic spinal cord injury and have returned to their communities. At the same time, he is collecting data pertaining to their demands on health services and perceived barriers to service access. Information is being obtained from Saskatchewan Health, an ongoing national survey that includes Saskatchewan-specific data, and interviews with patients, health care providers and health care administrators from urban, rural and northern communities in Saskatchewan.

By implementing a provincial outreach program to facilitate a continuum of care during and after transition into the community, Dr. Linassi hopes to improve quality of life for people who suffer from traumatic spinal cord injury.

Summaries of all awarded SCI research grants are available online at www.shrf.ca.

Gillian Muir

Valerie Verge

GILLIAN MUIR AND VALERIE VERGE

Veterinary Biomedical Sciences, Veterinary Medicine, U of S
and Anatomy and Cell Biology, Medicine, U of S

Acute intermittent hypoxia as a treatment for cervical spinal cord injuries

Cervical spinal cord injuries are neck injuries that usually result in partial or total paralysis. It has been found that acute intermittent hypoxia, or repeatedly breathing low oxygen levels for very short periods, improves breathing function in experimental animal models following this form of injury. Dr. Gillian Muir and Dr. Valerie Verge are investigating whether the same approach will aid in the recovery of limb function, particularly since in preliminary studies, the events leading to recovery in the regions of the spinal cord that control breathing, also appear to occur in regions that control limb muscles.

Using a rat model of cervical spinal cord injury, Drs. Muir and Verge are refining treatment protocols and determining underlying cellular mechanisms for this therapeutic intervention. When the optimal treatment protocol has been adequately tested, and potential adverse effects have been investigated, the researchers will use this information to help determine if this therapy is suitable and safe for use in persons with spinal cord injury.

Drs. Muir and Verge hope their research will help victims of cervical spinal cord injuries to regain arm and hand function, reduce the severity of the paralysis and improve their quality of life.

SPINAL CORD INJURY RESEARCH GRANTS

Daniel Chen
Mechanical Engineering, Engineering, U of S
Bio-fabrication of living-cell scaffolds for spinal cord injury repair

Gary Linassi
Physical Medicine and Rehabilitation, Medicine, U of S
Health care services and needs in spinal cord injury after acute care

Gillian Muir and Valerie Verge
Veterinary Biomedical Sciences, Veterinary Medicine, U of S
and Anatomy and Cell Biology, Medicine, U of S
Acute intermittent hypoxia as a treatment for cervical spinal cord injuries

David Schreyer

Anatomy and Cell Biology, Medicine, U of S
Regulation of the capacity for regenerative axon growth in the central nervous system

Research Connections Grants

This program provides up to $10,000 per event in matching funds to support health research conferences, workshops, research days and similar events that are organized and held in Saskatchewan. It is intended to promote advancement and exchange of new health research knowledge, encourage linkages among multiple stakeholders, help address knowledge gaps in areas of particular importance to the province, and nurture the development of the next generation of health researchers.

Community-Based Health Research Summer Institute: Weaving the Tapestry

BONNIE JEFFERY

Saskatchewan Population Health and Evaluation Research Unit, U of R

From June 19 to 24, 2011, the Indigenous Peoples' Health Research Centre, Saskatchewan Population Health and Evaluation Research Unit, and the Prairie Community-Based HIV Research Program held the Community-Based Health Research Summer Institute: Weaving the Tapestry at the University of Regina. The objective for the summer institute was to provide knowledge and build capacity through applied training in community-based research using a population health approach.

A total of 51 participants, made up of students, representatives of community organizations, and academics attended the institute from Saskatchewan, other provinces and the United States. Twenty participants attended from community-based organizations in Saskatchewan and Manitoba, and 14 universities were represented.

The agenda for the week long event was created with the intent to share successful strategies, approaches and innovations in community-based health research across four themes: building partnerships, research methods, information management, and knowledge translation and communications. Presenters included Dr. Charlotte Reading, a professor at the University of Victoria in the new School of Public Health and Social Policy, and Andrée Cazabon, a filmmaker, Gemini nominee and inspirational speaker.

Custody & Caring 12th Biennial International Conference on the Nurse's Role in the Criminal Justice System

ARLENE KENT-WILKINSON

College of Nursing, U of S

Held October 5-7, 2011 in Regina, Custody and Caring was the 12th biennial international conference on the nurse's role in the criminal justice system. The conference provides a consistent forum for researchers and clinicians to disseminate research findings and best practices, as well as providing the opportunity for networking and global collaboration with like-minded colleagues.

The solid focus on the nurse's role in the criminal justice system resulted in a high number of repeat attendees. The registration projected at 155 was up this past year to 175, with participants hailing from the United Kingdom, other parts of Canada, Australia, Germany, and the United States. Of this group, 73 participants were from Saskatchewan, including 12 nursing students who received complimentary registration.

Not only was the conference a success, but from all reports it was the best biennial conference since 1989. Planning is now underway for the 13th biennial conference that will be held in 2013.

Summaries of all awarded Research Connections grants are available online at www.sirf.ca

RESEARCH CONNECTIONS GRANTS

JOANNE BRACKEN

Alzheimer Society of Saskatchewan
Spotlight on Research: Alzheimer's Disease and Related Dementias. Hope. Courage. Progress.

Darren Candow
Kinesiology and Health Studies, U of R
Canadian Society for Exercise Physiology Conference

Tasha Epp
Large Animal Clinical Sciences, Veterinary Medicine, U of S
Dog Days: Sharing Sustainable Animal Management Ideas for Healthy First Nations Communities

John Gordon

Medicine, Medicine, U of S
A National Summit: The Canadian AgriSafety Applied Research Program

John Gordon
Medicine, Medicine, U of S
Prairie Infectious Immunology Network Meeting

Pawel Grochulski
Canadian Light Source Inc.
1st Annual CLS Mx Data Collection School

Mary Hampton
Luther College, U of R
RESOLVE Research Day 2012: Different Ways of Healing

Bonnie Jeffery
Saskatchewan Population Health and Evaluation Research Unit, U of R
Community-Based Health Research Summer Institute: Weaving the Tapestry

Arlene Kent-Wilkinson
Nursing, U of S
12th Biennial Custody & Caring: International Conference on the Nurse's Role in the Criminal Justice System

Anne Leis
Community Health and Epidemiology, Medicine, U of S
Saskatchewan Cancer Research Day

Joshua Marko
Saskatchewan Epidemiology Association
One Health: Bridging Animal and Human Health in Public Health Practice

John Moraros
Public Health, U of S
The 2012 Canadian Society for Epidemiology and Biostatistics (CSEB) National Student Conference

Nicholas Ovsenek
Anatomy and Cell Biology, Medicine, U of S
19th Annual Life & Health Sciences Research Day

Baljit Singh
Veterinary Biomedical Sciences, Veterinary Medicine, U of S
Scientist Knowledge Translation Workshop

Health Research Group Grants

These grants provide support for groups of talented productive researchers developing and carrying out plans for high-quality health research, knowledge translation, and capacity-building at a level of productivity that would not be possible from individual researchers working on their own. The program supports groups of researchers who comprise an appropriate range of talent, experience and perspectives for tackling complex health issues of importance to Saskatchewan. There are three phases:

Due to financial constraints, no Health Research Group grant competition was held in 2011-12. Research summaries of past funded Group grants are available online at www.shrf.ca/

Phase 1

Phase One grants support the formation and early development of health research groups that have the potential to evolve into highly productive and sustainable research groups capable of moving to Phase Two and securing major competitive funding.

Phase 2

Phase Two grants provide operating funding to support group members to collaboratively produce and share research knowledge that will strategically position them to compete for major funding at the national level. Successful Phase Two groups have demonstrated potential to evolve into highly productive and sustainable research groups.

Phase 3

Phase Three grants provide major operational support to sustain productive groups of talented and experienced researchers doing high-quality health research in areas of importance to the province.

Partnership Programs

The purpose of Partnership Programs is to collaborate with other funding agencies to support health research in Saskatchewan and increase overall funding for health research in Saskatchewan. Any grants funded through partnership programs must fit SHRF's mandate and objectives and must align with the goals of the provincial Health Research Strategy.

Table 2: Partnership Grants and Awards, 2011-12

Partnership Program	Awarded*			
	No.	Term (yrs)	SHRF Amount ($)	Partner Amount ($)
Saskatchewan Research Chair	0	n/a	0	0
SK-CIHR Regional Partnership Program				
Operating Grants	5	2	809,274	809,274
New Investigator Salary Awards	3	5	486,026	477,396
Fellowships	0	n/a	0	0
Doctoral Awards	0	n/a	0	0
Partnerships for Health System Improvement (with CIHR)	0	n/a	0	0
Total	8		1,295,300	1,286,670

* Awarded amounts are for the full term of the grant.

Saskatchewan Research Chairs Program

The Saskatchewan Research Chairs Program is intended to attract, support and retain top-quality research leaders who are working in a provincial priority area and who contribute to capacity building and knowledge sharing in those areas. The award provides $200,000 per year for up to five years, with up to $100,000 per year from SHRF and the remainder from partner agencies. Saskatchewan Research Chair awards are renewable once for five years, subject to funding availability, and provide:

- a contribution to the award holder's salary;
- funds to carry out research; and
- support for trainees working with the Chair award holder.

In 2011-12, SHRF revamped our process for the Research Chair applications to include a letter of intent from institutions wishing to host the Chair followed by a nomination of a candidate, including a research plan. The process of filling two Saskatchewan Research Chair opportunities continued in 2011-12. The Chair opportunities are: Multiple Sclerosis Clinical Research (partners: Saskatoon City Hospital Foundation and U of S College of Medicine) and Heart Disease and Stroke (partner: Heart and Stroke Foundation of Saskatchewan).

Partnerships for Health System Improvement Program

The Partnerships for Health System Improvement (PHSI) Program is a partnering program offered by CIHR's Institute for Health Services and Policy Research. It is designed to support teams of researchers and decision-makers interested in conducting applied health services research useful to health system managers and/or policy makers.

The Ministry of Advanced Education, Employment and Immigration provides funds to SHRF from the provincial Innovation and Science Fund to match federal initiatives like PHSI. The matching ratio for PHSI in Saskatchewan is 4:1, where CIHR provides the larger amount.

Teams apply to CIHR, which manages the peer review process. SHRF's role is to encourage more applications in Saskatchewan, manage the provincial matching funds, and participate in the required relevance review. SHRF supported two applications to CIHR's fall 2011 PHSI competition and results will be announced in the 2012-13 year.

Regional Partnership Program

The Saskatchewan-Canadian Institutes of Health Research Regional Partnership Program (Sask-CIHR RPP) is intended to increase the level of nationally funded health research in Saskatchewan. In its strategic plan for RPP, Saskatchewan's Advisory Committee has chosen the following CIHR programs as its priorities: Open Operating Grants; New Investigator Salary Awards; and Doctoral Student Awards. In addition, Fellowship Awards may be funded if resources permit.

The Sask-CIHR RPP has a $2 million per year envelope, provided by CIHR and provincial funds. In Saskatchewan, funding consists of $700,000 per year from SHRF plus funds from the Ministry of Advanced Education, Employment and Immigration (Innovation and Science Fund), and Universities of Saskatchewan and Regina. SHRF manages these funds with its university and government partners through the provincial Advisory Committee.

Researchers apply directly to CIHR, which does the peer review and ranks the applications. Researchers with very good scores that are just below CIHR's high funding cut-offs are funded on 1:1 matching basis.

SHRF's agreement with CIHR for RPP in Saskatchewan was expected to end in 2012-13, but has been extended to 2013-14. The reason for the extension is that CIHR is undertaking major changes to its open suite of programs and any new partnership program will align with these changes. Once more information is released, SHRF will consult with Saskatchewan partners and consider the various opportunities for attracting federal partnership funding to support health research in Saskatchewan.

JOHN HOWLAND

Physiology, Medicine, U of S

Long-term consequences of prenatal infection on behaviour and brain: Role of glycogen synthase kinase 3

According to the Canadian Mental Health Association, 20 per cent of Canadians will experience mental illness at some point during their lives. Although there is strong evidence to indicate genetic causes of some psychiatric disorders, recent studies have shown that the environment also plays a major role in the causes of psychiatric disorders, in particular schizophrenia. One such factor contributing to psychiatric disorders in adulthood is prenatal infection, or exposure to an infection while in utero.

Dr. John Howland's research explores the connection between psychiatric disorder and infection using rat models. He first simulates an infection in pregnant rats and then monitors the offspring by measuring brain activity during various behavioural tasks. The offspring are later treated with novel anti-psychotic medications to help reduce the abnormal symptoms associated with psychiatric disorder. The second phase of the project involves attempting to block the effects of the infection in the pregnant rats before it triggers the cascade of events leading to psychiatric symptoms.

By combining immunological research related to infection with that focused on psychiatric disorders, Dr. Howland proposes an approach to treating psychiatric disorders that focuses on prevention rather than the treatment of symptoms.

SCOT LEARY

Biochemistry, Medicine, U of S

Genetic and functional characterization of SCO-dependent, mitochondrial regulation of cellular copper homeostasis

A multitude of children's diseases – muscle diseases, heart diseases, liver diseases and brain diseases – can all be traced back to an inability of the body to effectively deliver copper to cellular and subcellular locations in the affected regions. Dr. Scot Leary is exploring the pathways – operating at the body, organ, cellular and subcellular levels – taken by the copper to determine why it doesn't always arrive at its various destinations.

Since there is a significant frequency of diseased organs in children that are characterized by deficiencies in copper, Dr. Leary's search begins near the surface with the mitochondria, the small compartments within the cell where energy is produced to support normal cell function. From there, it digs deeper by looking at the enzyme complexes that contribute to the production of that energy. Then it delves into the many proteins that deliver copper to those enzyme complexes. Dr. Leary has discovered that some of the proteins function beyond the delivery of the copper; they actually play a role in regulating how that copper is handled within the cell.

Dr. Leary's overall goal is to further identify and characterize the various components of the copper's web-like pathways. He hopes to contribute to our understanding of how mitochondria make fundamental contributions to the safe handling and appropriate distribution of copper within the cell and, indeed, the entire body. This in turn may lead to the development of novel therapies for the treatment of children's diseases.

PATRICIA FARNESE

Law, U of S

Achieving coherence in Canada's legal and policy framework for infectious disease control

For centuries, infectious diseases have been transmitted between humans, animals used in agriculture and animals in the wild. Because the links have long been identified and are becoming more widely recognized, calls have increased, both nationally and internationally, to reduce human vulnerability to infectious diseases by better integrating infectious disease control policies.

Professor Patricia Farnese is conducting research of existing policies and exploring the potential for positive change. Her preliminary research includes investigating the extent to which the existing legal and policy framework for infectious disease control in humans, animals and wildlife is integrated. She is also considering reasons for any lack of integration by exploring the structural, constitutional or other limitations and constraints to better integration. One outcome of her research will be an analysis comparing Canada's existing framework with frameworks from other jurisdictions.

Professor Farnese plans to better integrate infectious disease policies by revealing ways to more closely align the legal and policy framework for infectious disease control with best practices in wildlife health. To complete her examination, she is undertaking case study analyses of Avian influenza and the Nipah virus.

SASK-CIHR REGIONAL PARTNERSHIP PROGRAM

New Investigator Salary Awards

John Howland

Physiology, Medicine, U of S
Long-term consequences of prenatal infection on behaviour and brain: Role of glycogen synthase kinase 3

Kiven (Erique) Lukong
Biochemistry, Medicine, U of S
Characterizing the role of BRK in breast cancer formation and metastasis

Grzegorz (Greg) Sawicki
Pharmacology, Medicine, U of S
Heart protection from ischemia-reperfusion Injury by multidrug treatment

Operating Grants

Patricia Farnese
Law, U of S
Achieving coherence in Canada's legal and policy framework for infectious disease control. An analysis of the wildlife, animal and human health link

Shanthi Johnson
Kinesiology and Health Studies, U of R
Impact of a home-based exercise intervention on falls and fall-related injuries among seniors living in rural and urban areas in Saskatchewan

Scot Leary

Biochemistry, Medicine, U of S
Genetic and functional characterization of SCO-dependent, mitochondrial regulation of cellular copper homeostasis

Sean Mulligan
Physiology, Medicine, U of S
Imaging pain fibre activation in the cerebral meninges; Insight into the pathophysiology of migraine headache

David Sanders
Chemistry, Arts and Science, U of S
Targeting UDP-galactopyranose mutase: A structure-assisted approach for developing potential anti-tuberculosis agents

CREATING A SUPPORTIVE ENVIRONMENT

Successful health research and health research funding requires a stable and supportive environment to prosper. SHRF works to encourage both stability and support by working on initiatives that continue to build an "healthy" environment for health research activities. Whether locally, provincially, or on the national stage, SHRF contributes its efforts toward collaboration, partnerships and communications to create and celebrate the dynamic supportive environment that exists for Saskatchewan's health research community.

Health Research Funding Forums

Facilitating a stronger connection with the health research community, SHRF held its second annual health research funding forums in Saskatoon and Regina. The purpose of these forums is to meet with associate deans of research in health areas and other senior research administrators to share plans and recent developments – both at SHRF and the universities. The forums provide an opportunity for SHRF to receive feedback on new and continuing plans and for participants to raise other matters and ask questions about SHRF programs or policies and inform SHRF about developments in their institutions. Both Saskatoon and Regina forums were valuable and well attended.

Researcher Directory

Development of the Saskatchewan Directory of Health Researchers began with SHRF joining the Canadian Common CV (curriculum vitae) initiative, known as the "CCV," in 2007-08. The CCV is an online repository where researchers enter and update information about their experience, publications and funding record and use it for submitting grant applications to many different agencies. When Saskatchewan researchers complete their CCV, they are invited to add their information to the Directory. The Directory can be used for searching out research experts – whether you're a researcher interested in finding potential colleagues or a decision-maker looking for an expert on a certain topic. There are now more than 600 Saskatchewan researchers in this searchable directory. A new CCV is being developed by the Canadian Institutes of Health Research (CIHR), set to be released in the summer of 2012.

With a new CCV comes a new look for the Directory, available to the public online at www.shrf.ca

Dissemination and Promotion

Santé!

The Saskatchewan Health Research Foundation presented its annual Santé! Awards Evening on December 1, 2011 at the Hilton Garden Inn in Saskatoon. Over 200 attendees representing all aspects of the research community enjoyed networking as well as celebrating health research successes and excellence.

The evening included a poster session for SHRF-funded researchers that allowed them to discuss their projects with colleagues and VIPs, followed by a short program for the awards. Special guests included the Honourable Don McMorris, Saskatchewan Minister of Health, who was on hand to present the awards and congratulate the winners. Once again, we recognized our Top Researcher Award winners, individuals who ranked highest in the New Investigator Establishment Grant and Postdoctoral Research Fellowship competitions. The winners in the New Investigator Establishment category were Dr. Yuliang Wu, from the Department of Biochemistry in the College of Medicine at the U of S (Biomedical) and Dr. Sandra Webber, Vaccine and Infectious Disease Organization at the U of S (Socio-Health). Top honours in the Postdoctoral Research Fellowship category went to Dr. Sandra Schulz from the Vaccine and Infectious Disease Organization at the U of S (Biomedical). Dr. Sandra Schulz's supervisor is Dr. Sylvia van Drunen Littel-van den Hurk. The award in the Socio-Health, Clinical and Systems category went to Dr. Rami Al-Nazer from the College of Kinesiology at the U of S. Dr. Al-Nazer's supervisors are Dr. Joel Lanovaz, Dr. Saija Kontulainen and Dr. James Johnston.

As part of our toast to health research successes, SHRF was pleased to announce the winner of the SHRF Achievement Award, which honours those individuals in the health research community who inspire us with their drive, leadership, ingenuity, and achievement.

SHRF ACHIEVEMENT AWARD 2011

DR. DENNIS JOHNSON

Nominated by his peers and recognized for his exemplary career achievements, Dr. Johnson has dedicated his entire career to the health research landscape in Saskatchewan. He is noted for his role in establishing some of the province's primary research facilities, such as the Cameco MS Neuroscience Research Centre, the Saskatchewan Drug Research Institute and the Canadian Light Source. In 2004, Dr. Johnson became the Director of the Saskatchewan Synchrotron Institute, an organization that provided a million dollars in funding to train Saskatchewan researchers. Synchrotron-based health research has now become one of the province's key research funding priorities. Dr. Johnson's vision, leadership and unwavering dedication made him the ideal recipient for this year's SHRF Achievement Award.

Communications

SHRF works to spread the news and promote its health research mandate in Saskatchewan. Through a number of communication activities, SHRF demonstrates its accountability by sharing information about the innovative and exciting research being funded by public money. These efforts also foster connections between researchers and stakeholders, links that help them to share and use health research knowledge for the benefit of the people of our province.

Through ongoing contact with external constituents and stakeholders – government, educational institutions, health agencies and health sector organizations – SHRF works to hone and refine opportunities for building awareness of its role and mandate. Much of the work of communications is centred around three imperatives: trusted support; strong science; and valued impact.

To better demonstrate and showcase our activities, the SHRF website was completely redesigned and reorganized this year, placing more emphasis on storytelling and accountability. The refreshed look and functionality allow users a more effective and efficient experience, and provide SHRF with added clarity and transparency.

Fund Development

SHRF's mandate directs the organization to seek and receive funds from government and non-government sources to advance health research in the province. In 2011-12, with the addition of a Director of Partnerships, we have begun the development of the ways and means to achieve this part of our mandate.

Considerable scoping work was completed to begin understanding where SHRF "fits" into the fund development environment for health research. Not enough is known by potential donors or donor organizations about the discoveries Saskatchewan researchers have contributed to health history. Over the next few years, SHRF will continue to engage its partners – other fund development organizations, institutions and individuals – to strengthen an understanding of the return that accrues from a sustained investment in health research.

Special Initiatives

Patient-Oriented Research

Patient-oriented research is described by the Canadian Institutes of Health Research (CIHR) as the "cornerstone of evidence-informed health care" and ranges from testing new therapies, such as drug trials, to comparing methods of health care delivery to see what works best or is more efficient. SHRF has convened a working group comprised of provincial stakeholders that has met four times this year to discuss how they can work together to advance patient-oriented research in Saskatchewan. The group consists of representatives from the University of Saskatchewan, University of Regina, Ministry of Health, Regina Qu'Appelle Health Region, Saskatoon Health Region, Health Quality Council, Saskatchewan Cancer Agency, Saskatchewan Academic Health Science Network, Saskatchewan Institute of Applied Science and Technology, and Innovation Saskatchewan.

A writing group was struck from this larger group and has been drafting a proposal in anticipation of a Call for Letters of Intent from CIHR in summer 2012 for its Strategy for Patient-Oriented Research funding. The writing group is focusing on plans for what CIHR is calling a SUPPORT Unit (Support for People and Patient-Oriented Research and Trials). SUPPORT Units will receive up to $5 million over five to seven years and are to be designed to sustain themselves after CIHR funding has ended. Saskatchewan expects to have one unit, potentially with multiple hubs, that will:

- lead major research projects that address priority needs of the health care system and aid in administrative and clinical decision making;
- provide research support and expertise to individuals and groups of clinicians and researchers, and to industry;
- lead cutting-edge research and training in research methodologies;
- facilitate the use of administrative data and their linkage to clinical and other sources of data; and
- support implementation of research findings into practice.

Should Saskatchewan's Letter of Intent be approved to move forward, SHRF and its provincial partners will work with CIHR's advisory committee over the winter of 2012 to refine the proposal. Funding for successful applicants is anticipated to flow in spring of 2013.

Aboriginal Peoples' Health Research Advisory Panel

Dr. Jo-Ann Episkenew, Director of the Indigenous Peoples' Health Research Center, and Dr. Rose Roberts, CEO of Northern Inter-Tribal Health Authority, are co-Chairs for SHRF's newly formed Aboriginal Peoples' Health Research Advisory Panel. They will support SHRF in leading a panel that will identify priorities for Aboriginal peoples' health research in Saskatchewan and determine funding mechanisms and strategies to move those priorities forward. SHRF has selected panel members with a wide range of experiences and expertise, including members from the north and south of the province, rural and urban areas, Métis and First Nations communities, and researchers and providers of health care. The first Panel meeting is scheduled for mid-May 2012.

Health Services Research Advisory Panel

Dr. Heather Hadjistavropoulos, Professor and Director of Clinical Training in the Department of Psychology at the U of R, is Chair of SHRF's new Health Services Research Advisory Panel. The goal of this panel is to guide SHRF's future support for research that informs health policy development and translates into best practices in health care. The panel will advise SHRF on priority areas for health services research in the province and recommend ways to support these priorities. Panel members represent a wide range of disciplines and health services experiences, including clinical and nonclinical researchers, health care administrators, rural and urban regions, and the Ministry of Health. The first panel meeting is scheduled for late June 2012.

MEASURING IMPACT

From the development of better vaccines to fight disease, to designing interventions to prevent seniors' falls, health research has no boundaries or shortage of health and health care concerns to address. Health research explores ways to improve quality of life for the individual and increase the overall health of the population. With that goal in mind, governments and the private sector are asked to contribute more money to fund health research, or what has been coined the R&D sector of the health system. To demonstrate the benefits of increased investment in this area, the health research community needs to establish productive partnerships that produce the outputs, outcomes, and impacts of research, also known as return on investment (ROI). It is also important to demonstrate accountability to stakeholders and show the impacts and contributions of health research in Saskatchewan on the economy, health care system, and health of Saskatchewan people. SHRF plays a lead role in these efforts and has aligned its evaluation activities with the Canadian Academy of Health Sciences (CAHS) framework. The CAHS ROI Framework outlines how best to measure return on investment in health research. The activities reported below all fall within this framework.

Implementing and Monitoring SHRF's Strategic Plan

In SHRF's recently published Strategic Plan 2011-2015, objectives and success measures are defined for operational goals, strategic goals, and performance goals. Operational goals are the foundation that provides support for the organization's work (i.e., resources and professional development). Strategic goals are intended to create impact for our stakeholders and work towards achieving SHRF's vision of building a healthy Saskatchewan through health research: 1) focusing on research priorities that reflect needs and strengths; 2) supporting the research environment; 3) encouraging the sharing and using of health research; and 4) achieving excellence. Performance goals are high-level outcomes and impacts that all stakeholders in health research contribute to achieving (i.e., economic return on investment, number of patents, and use of research in health sector). See SHRF's strategic framework below. SHRF will continue to partner with key stakeholders, implement the actions laid out in this plan and monitor its progress.

SHRF's Strategic Framework

PERFORMANCE GOALS	Outcomes and Impacts How does SHRF contribute to building a healthy Saskatchewan through health research?	5.	Realize SHRF's vision
STRATEGIC GOALS	Internal Processes How does SHRF create an impact for our stakeholders? Focusing on research priorities · Supporting the research environment · Encouraging the sharing and use of health research · Achieving excellence	4. 3.	Meet our stakeholder's expectations to… Operationalize our strategic goals to…
OPERATIONAL GOALS	Growth and Learning How does SHRF align our intangible assets to improve our ability to support our strategy?	2.	Equip our people to…
	Resources How does SHRF effectively manage, allocate resources and increase dollars to maximize impact?	1.	Manage resources to…

Return on Investment of Saskatchewan Health Research

The purpose of this study, launched by SHRF in 2011, is to use qualitative and quantitative techniques to assess the return on investment of SHRF funding. Using the CAHS framework and indicators to measure returns on investment in health research, the study will be an in-depth look at the outcomes and impact of health research with specific focus on provincial health research priority areas. The CAHS framework for measuring return on investment in health research builds upon the Payback Model developed by Buxton and Haney (1994) and defines five main categories to track health research impacts. Below are the five categories with suggested indicators:

1) Advancing Knowledge – quality, activity, outreach (e.g., bibliometrics, publications, CV analysis)

2) Research Capacity Building – personnel, funding, infrastructure (e.g., number of researchers, staff and students, national funding success, collaborations)

3) Informing Decision Making – health system use of research, researcher activities supporting policy, health products industry, general public awareness (e.g, industry/researcher collaborations, researcher knowledge translation activity with the health sector)

4) Health and Health System Impacts – health status, determinants of health, health system performance (e.g., prevalence and incidence health indicators, education levels, wait times)

5) Broad Economic and Social Impacts – commercialization, health benefits, social benefits (e.g., employment benefits, product sales revenue, socioeconomic status)

The science of measuring returns on investment in health research is relatively new. Although national and international work has been accomplished in this area, this is a great opportunity for SHRF to advance our understanding of health research outcomes and impacts at the provincial level. SHRF plans to publish the results of the study using a number of mediums throughout the summer and fall of 2012.

Health Research Capacity in Saskatchewan: A Descriptive Report – 2nd Edition

SHRF has been working on preparing and analyzing data from the Saskatchewan Directory of Health Researchers for the second edition of a report called Health Research Capacity in Saskatchewan: A Descriptive Report. The report describes who Saskatchewan health researchers are and what types of health research are being done in Saskatchewan. This descriptive information gives us a general understanding of the health research capacity in the province of Saskatchewan and will allow us to track changes over time.

In the 2012 report, 365 researchers were doing work in one or more of the provincial health research priority areas, up from 241 in 2009. A more specific breakdown of the priorities in the 2012 report can be seen in the accompanying graph.

Another interesting result in the 2012 Capacity Report comes through a keyword analysis. The top five keywords or phrases indicated are:

1) Infectious disease;

2) Cancer;

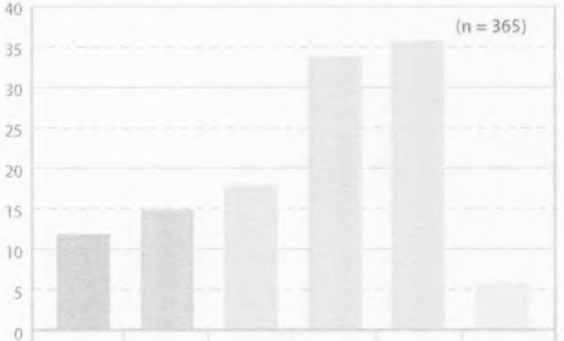
3) Cardiovascular disease;

4) Mental health; and

5) Respiratory disease.

This gives us a rough estimate of research capacity (i.e., research activity) in Saskatchewan. More in-depth analysis will be presented in the 2012 Capacity Report, due out in the summer of 2012.

Percentage of researchers addressing each of the provincial health research priorities*



*Percentages do not add up to 100 as researchers can be working in multiple priority areas

Bibliometrics

Publication of articles in peer reviewed scientific journals is a major mechanism for disseminating scientific results. The study or measurement of scientific publishing patterns is something called bibliometrics. Bibliometric methods are a set of measures that can be used to indicate research performance, providing information on the number, impact, and relative intensity in specific scientific areas. SHRF works with the National Alliance of Provincial Health Research Organizations (NAPHRO) and the Canadian Institutes of Health Research (CIHR) to acquire and interpret this data from Science Metrix. See below for a sample of bibliometric data for Saskatchewan researchers.

Bibliometric data is used as an indicator of quantity and quality of Saskatchewan health research. As displayed in the graph, aside from a small reduction in the last year, Saskatchewan researchers have increased the number of publications in the Medical Sciences from 2005 to 2009.

Specialization Index (SI) is a measure developed by Science Metrix to reflect the intensity/proportion of publications in a given discipline (e.g., clinical psychology) in the total output of an entity (e.g., Saskatchewan) relative to the intensity/proportion of publications worldwide as a whole in the same discipline. As seen in the table below, an SI value above 1.0 means that Saskatchewan research is specialized compared to the world average. In 2009, Saskatchewan's highest SI scores for each of the four research fields categorized by Science Metrix were as follows:

Number of Medical Science Publications in Saskatchewan

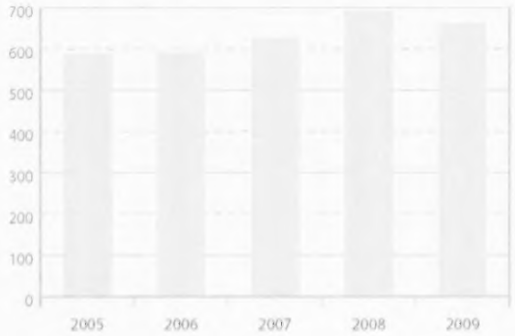


Table 3: Field and Sub-discipline

Field and Sub-discipline (1.0 = world average)	Specialization Index in SK	Specialization Index in Canada
Biomedical		
Microbiology	1.55	.83
Nutrition & Dietetic	1.36	1.16
Clinical		
Arthritis & Rheumatology	1.59	1.58
Environmental & Occupational Health	2.09	1.55
Psychology		
Behavioral Science & Complementary Psychology	1.98	1.88
Clinical Psychology	2.15	1.54
Health		
Nursing	1.59	1.60
Rehabilitation	1.43	1.66

* Terms and analysis defined by Science Metrix

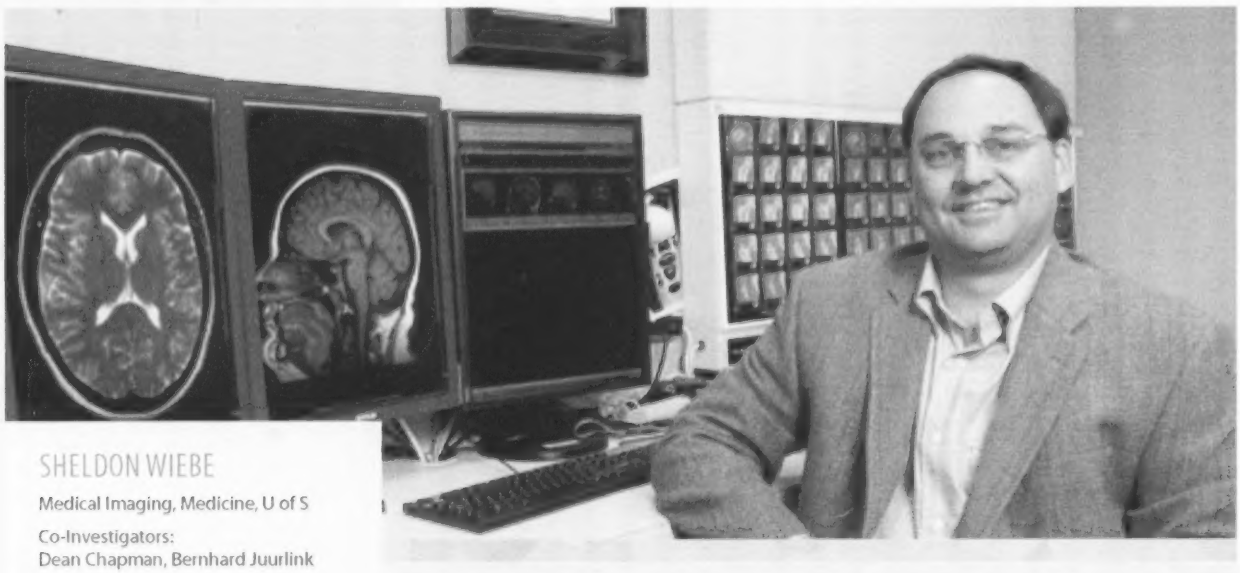
Five-Year Follow-up Survey

The purpose of this study is to assess the outcomes and impacts of SHRF researchers five years post-award. The survey obtains information on researchers' success in attaining national funding, research productivity, and potential benefits to the economy, society and the health of Saskatchewan people. This year's five-year follow-up study focused on the 2006-07 New Investigator Establishment Grant holders and was completed over the summer of 2011. Key highlights of this study include:

- Nine of 12 (75 per cent) grantees responded to the online survey;
- Nine of nine (100 per cent) remained in the province to conduct research over the last five years;
- Seven out of nine (78 per cent) respondents had a primary author publication resulting from SHRF funding;
- Eight out of nine (89 per cent) respondents had received another major grant (over $25,000/year); and
- All nine respondents agreed or strongly agreed that the SHRF New Investigator Establishment Grant was very important in establishing their research program.

SHRF has been gathering this data for over 10 years, creating a unique longitudinal data set.

FIVE-YEAR FOLLOW-UP WITH:



SHELDON WIEBE

Medical Imaging, Medicine, U of S

Co-Investigators:
Dean Chapman, Bernhard Juurlink

Imaging of growth plate injury and the effect of inflammation using innovative synchrotron imaging techniques

Of the bone fractures that occur in boys and girls before age 16, between 14 per cent and 27 per cent are through the growth plate. This is the section of cartilage responsible for growth of the long bones in children and adolescents. In about a quarter of these cases, the break causes premature closing of the growth plate, which results in shorter than normal bones. Dr. Sheldon Wiebe received SHRF funding to explore the potential for using synchrotron imaging to determine if there is a link between the inflammation that occurs as part of healing and development of these deformities.

Dr. Wiebe focused his research on the interpretation of the highly detailed refraction-based images produced by synchrotron light at various stages of healing. As a result of the insight into refraction imaging, the Canadian Arthritis Society funded a similar project using larger specimens. Dr. Wiebe's work will pave the way for improved understanding of refraction imaging techniques used at biomedical synchrotron imaging facilities.

FIVE-YEAR FOLLOW-UP WITH:

PATRICK NEARY

Kinesiology and Health Studies, U of R

Co-Investigators:
Gordon Asmundson, Bharath Krishnan

Biopsychological factors of post-concussion syndrome: Implication for mental health

Some people who suffer a concussion (also known as mild traumatic brain injury, or mTBI) experience lingering problems, including depression and anxiety, severe fatigue, and even post-traumatic disorder. They often need to take time off from work or school, and require considerable support from the health care system. Dr. Patrick Neary applied to SHRF to study what happens in the brain of athletes who have been concussed, as these individuals are particularly motivated to return to action in their chosen sport.

Supported by SHRF funding, Dr. Neary used transcranial Doppler ultrasonography to explore how the concussed brain responds both physiologically and psychologically during mild to moderate exercise. Overall, research confirmed that concussion alters both cerebral blood flow and oxygenation, which in the majority of cases are transient and return to normal over the next weeks to months. Dr. Neary was also able to show that the heart undergoes transient functional changes as well, but returns to normal in time. This knowledge can impact the development of treatment guidelines and reduce health care costs incurred by people with traumatic brain injury.

STRONG GOVERNANCE

With SHRF's vision of "building a healthy Saskatchewan through health research" comes great responsibility; it requires the commitment and collaboration of many partners. There is an entire province of people who have entrusted SHRF with their investment, and who ultimately benefit from the outcomes and transfer of knowledge that results from health research.

As a publicly funded agency, SHRF has developed a governance model that ensures transparency and accountability in all of its activities. The clear direction of our mandate is translated into our new Strategic Plan which builds upon the priorities for health research that are delineated in Saskatchewan's Health Research Strategy. The Board of Directors measures our success against these strategic goals and their objectives.

The grants that SHRF awards are subject to rigorous peer review by research and health experts.

Mandate

As defined in *The Saskatchewan Health Research Foundation Act* (2002):

1) Seek and receive funding from government and non-government sources for the advancement of research.
2) Encourage and facilitate research in health sciences, the health-related social sciences and other health-related fields of study.
3) Assist the Minister of Health to develop a provincial strategy for research into matters associated with the health sciences, the health-related social sciences and other health-related fields of study.
4) Provide funding to persons and agencies who are conducting or proposing to conduct research projects that are consistent with the provincial strategy.
5) Disseminate information to members of health-related professions and to the public respecting the objects of the Foundation, the research that the Foundation supports, the results of that research, and conclusions drawn from that research.

Strategic Plan

SHRF's main performance goal is to "grow Saskatchewan's health research enterprise through increased dollars." The Plan is structured around the following four strategic goals and accompanying actions:

1) Focusing on research priorities that reflect needs and strengths;
2) Supporting the research environment;
3) Encouraging the sharing and using of health research; and
4) Achieving excellence.

In addition, the plan also incorporates three crosscutting business strategies that will shape SHRF's work for years to come:

- build partnerships with public and private sector organizations to increase resources for health research (trusted support);
- lead and co-ordinate strategic health research opportunities for the province (strong science); and
- facilitate linkages that support better connections across research, innovation and practice (valued impact).

Peer Review

Our grant selection processes are founded on peer review, where panels of active researchers assess research proposals using excellence, relevance, and feasibility as key deciding factors. Applications must also exemplify the stated objectives and priorities for the particular funding program (as described in our Awards Guide). Our granting process has multiple steps shown here. Peer review for programs where SHRF is matching or partnering with other funding agencies may be done by the other agency, so long as SHRF requirements are met.

Selection Steps

1. SHRF invites reviewers to serve on committees
2. Applicants submit applications to SHRF
3. SHRF staff screen applications for completeness and eligibility
4. Review committee chair, with SHRF staff, assigns applications to reviewers
5. Reviewers prepare in-depth assessments based on program criteria and excellence
6. Committee meets to discuss, rate and rank all applications
7. Committee recommends meritorious applications for funding
8. SHRF Board reviews and approves the committee's recommendations
9. SHRF offers grants and awards to as many recommended applicants as resources permit
10. SHRF staff ensure all conditions are met before authorizing payments to researchers' home institutions

Committee Membership 2011-2012

We are extremely grateful to our dedicated review committee chairs and members who so generously provide their expertise on a volunteer basis, typically for a three-year term. These dedicated individuals contribute to the collective wisdom that is critical to the quality and integrity of our selection processes.

Biomedical Personnel Awards Review Committee

Darrell Mousseau (Chair) (1)
Department of Psychiatry
College of Medicine, U of S

Terra Arnason (1)
Department of Medicine
College of Medicine, U of S

Oleg Dmitriev (1)
Department of Biochemistry
College of Medicine, U of S

Graham George (4)
Department of Geological Sciences
College of Arts and Science, U of S

Sean Mulligan (2)
Department of Physiology
College of Medicine, U of S

Lynn Weber (2)
Department of Veterinary Biomedical Sciences
Western College of Veterinary Medicine, U of S

Joyce Wilson (1)
Department of Microbiology and Immunology
College of Medicine, U of S

Yan Zhou (2)
Vaccine and Infectious Disease Organization, U of S

Biomedical Establishment Grant Review Committee

Patrick Krone (Chair) (2)
Department of Anatomy and Cell Biology
College of Medicine, U of S

Jane Alcorn (3)
College of Pharmacy and Nutrition, U of S

Francisco Cayabyab (1)
Department of Physiology
College of Medicine, U of S

Wolfgang Koester (2)
Vaccine and Infectious Disease Organization, U of S

David Palmer (2)
Department of Chemistry
College of Arts and Science, U of S

Cheryl Waldner (2)
Department of Large Animal Clinical Sciences
Western College of Veterinary Medicine, U of S

Andrew Wee (2)
Department of Chemistry and Biochemistry
Faculty of Science, U of R

Socio-Health, Systems, and Clinical Review Committee

Mary Hampton (Chair) (2)
Luther College, U of R

Angela Bowen (1)
College of Nursing, U of S

Juliette Cooper (3)
School of Medical Rehabilitation
Faculty of Medicine, U of Manitoba

Vanina Dal Bello-Haas (2)
School of Physical Therapy
College of Medicine, U of S

Roland Dyck (2)
Department of Medicine
College of Medicine, U of S

Brenda Elias (2)
Department of Community Health Sciences
Faculty of Medicine, U of Manitoba

Jonathan Farthing (1)
College of Kinesiology, U of S

Nancy Gyurcsik (1)
College of Kinesiology, U of S

Paul Hackett (1)
Department of Geography
College of Arts and Science, U of S

Jennifer Nicol (1)
Department of Educational Psychology and Special Education
College of Education, U of S

Ulrich Teucher (1)
Department of Psychology, U of S

Collaborative Grants and Awards Review Committee

Tom Wishart (Chair) (4)
Department of Psychology
College of Arts and Science, Office of the Vice-President Research, U of S

Heather Hadjistavropoulos (2)
Department of Psychology
Faculty of Arts, U of R

Robert Hilsden (4)
Departments of Medicine and Community Health Sciences
Faculty of Medicine, U of Calgary

Colleen Norris (3)
Faculty of Nursing, U of Alberta

Figures in parentheses indicate number of years served, including current year.

2011-12 Board of Directors

The Board of Directors manages the affairs and business of SHRF. Membership consists of not more than 12 members who are appointed by the Lieutenant Governor in Council and who hold office for a term not exceeding three years, renewable once. Each board member also serves on a board committee. Currently, SHRF has two standing committees: Governance; and Finance and Audit.

Terry Baker, Chair
Farmer, Denzil (4)

Jacqueline Messer-Lepage, Vice Chair
Saskatchewan Ministry of Health (4)

Sylvia Abonyi
University of Saskatchewan (4)

Heather George
Saskatchewan Ministry of Advanced Education, Employment and Immigration (2)

John Gordon
University of Saskatchewan (4)

Andrew Greenshaw
University of Alberta (4)

Beth Horsburgh
(from September 8, 2011) Saskatoon Health Region, and University of Saskatchewan (2)

Shanthi Johnson
University of Regina (3)

Gordon McKay
University of Saskatchewan (2)

Cory Neudorf
(until June 30, 2011) Saskatoon Health Region (1)

Tom Porter
Consultant, Saskatoon (4)

In 2011-12, a total of four board meetings were held. Figures in brackets indicate the number of meetings each board member attended.

SHRF
SASKATCHEWAN
HEALTH RESEARCH
FOUNDATION

FINANCIAL STATEMENTS

FOR THE YEAR ENDED MARCH 31, 2012

2011-12
ANNUAL
REPORT

Report of Management

Management is responsible for the integrity of the financial information reported by the Saskatchewan Health Research Foundation.

Fulfilling this responsibility requires the preparation and presentation of financial statements and other financial information in accordance with Canadian generally accepted accounting principles that are consistently applied, with any exceptions specifically described in the financial statements.

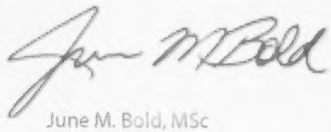
The accounting system used by the Foundation includes an appropriate system of internal controls to provide reasonable assurance that:

- transactions are authorized;
- the assets of the Foundation are protected from loss and unauthorized use; and
- the accounts are properly kept and financial reports are properly monitored to ensure reliable information is provided for preparation of financial statements and other financial information.

To ensure management meets its responsibilities for financial reporting and internal control, board members of the Foundation discuss audit and financial reporting matters with representatives of management at regular meetings. Foundation board members have also reviewed and approved the financial statements with representatives of management.

The Provincial Auditor of Saskatchewan has audited the Foundation's statement of financial position, statements of operations, change in net financial assets and cash flow. Her responsibility is to express an opinion on the fairness of management's financial statements. The Auditor's report outlines the scope of her audit and her opinion.

Terry Baker
Board Chair



June M. Bold, MSc
Chief Executive Officer

INDEPENDENT AUDITOR'S REPORT

To: The Members of the Legislative Assembly of Saskatchewan

I have audited the accompanying financial statements of the Saskatchewan Health Research Foundation, which comprise the statement of financial position as at March 31, 2012, and the statement of operations, change in net financial assets and cash flows for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards for Treasury Board's approval, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

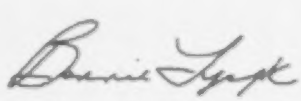
My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform an audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of the Saskatchewan Health Research Foundation as at March 31, 2012 and the results of its operations, changes in its net financial assets, and its cash flows for the year then ended in accordance with Canadian public sector accounting standards.



Bonnie Lysyk, MBA, CA
Provincial Auditor

Regina, Saskatchewan
June 27, 2012

STATEMENT OF FINANCIAL POSITION

As at March 31

	2012	2011
Financial assets		
Cash and cash equivalents (Schedule 2)	$ 5,305,470	$ 85,004
Accrued interest receivable	61,111	130,095
Accounts receivable	73,904	80,640
Short-term investments (Schedule 2)	4,166,151	3,079,685
Long-term investments (Schedule 2)	1,594,859	8,397,304
	11,201,495	11,772,728
Liabilities		
Deferred revenue (Note 2(a) and 4)	-	5,408,279
Accounts payable and accrued liabilities	82,626	42,766
Payroll liabilities	17,943	22,553
Grants payable	5,185,454	5,272,899
	5,286,023	10,746,497
Net financial assets	5,915,472	1,026,231
Non-financial assets		
Tangible capital assets (Note 3)	47,234	49,953
Inventory	-	3,211
Prepaid expenses	9,102	22,355
	56,336	75,519
Accumulated surplus	$ 5,971,808	$ 1,101,750

Commitments (Schedule 3 and Notes 2(d), and 5)

(See accompanying notes to the financial statements)

STATEMENT OF OPERATIONS

For the year ended March 31

	2012		2011
	Budget	Actual	Actual
	(Note 10)		(Note 12)
Revenue			
Government contributions			
Ministry of Health	$ 6,898,006	$ 10,810,135	$ 5,377,865
Ministry of Advanced Education, Employment and Immigration	649,144	649,144	352,773
Non-government contributions			
Alzheimer's Society of Saskatchewan	100,000	100,000	100,000
Canadian Crohn's & Colitis Foundation	25,000	-	-
Heart and Stroke Foundation of Canada	100,000	-	-
Health Quality Council	60,000	-	-
Saskatoon City Hospital Foundation	100,000	-	-
Terry Fox Research Institution	25,000	-	-
Donations and sponsorships	26,000	3,500	6,060
Other revenue (Note 7)	344,979	492,591	246,598
Total revenue	8,328,129	12,055,370	6,083,296
Expense			
Research funding			
Saskatchewan Health Research Foundation programs	5,758,533	4,498,830	4,120,147
Partnership programs (Note 6)	2,085,144	1,136,026	1,252,774
Program support	216,366	234,748	211,636
Dissemination and promotion	303,486	296,280	253,338
Impact Analysis	179,947	141,294	130,773
Leadership and management			
Board	47,448	40,702	36,196
Administrative	818,196	837,432	751,017
Total expenses (Schedule 1)	9,409,120	7,185,312	6,755,881
Annual (deficit) surplus	$ (1,080,991)	4,870,058	(672,585)
Accumulated surplus, beginning of year		1,101,750	1,774,335
Accumulated surplus, end of year		$ 5,971,808	$ 1,101,750

(See accompanying notes to the financial statements)

STATEMENT OF CHANGE IN NET FINANCIAL ASSETS

For the year ended March 31

	2012	2011
Annual surplus (deficit)	$ 4,870,058	$ (672,585)
Acquisition of tangible capital assets	(24,873)	(28,335)
Disposal of capital assets	533	172
Amortization of tangible capital assets	27,059	25,213
	2,719	(2,950)
Use of inventory	3,211	5,249
Acquisiton of prepaid expense	(65,162)	(59,246)
Use of prepaid expense	78,415	60,370
	16,464	6,373
Increase (Decrease) in net financial assets	4,889,241	(669,162)
Net financial assets, beginning of year	1,026,231	1,695,393
Net financial assets, end of year	$ 5,915,472	$ 1,026,231

(See accompanying notes to the financial statements)

STATEMENT OF CASH FLOWS

For the year ended March 31

	2012	2011
Operating transactions		
Annual surplus (deficit)	$ 4,870,058	$ (672,585)
Non-cash items included in annual surplus:		
Amortization of tangible capital assets	27,059	25,213
Loss on disposal of capital assets	-	172
Bond amortization	(29,939)	(60,361)
Net change in non-cash working capital items:		
Accrued interest receivable	68,984	(85,302)
Accounts receivable	6,736	(65,795)
Inventory	3,211	5,249
Prepaid expenses	13,253	1,124
Deferred revenue	(5,408,279)	5,140,362
Accounts payable and accrued liabilities	39,860	(17,697)
Payroll liabilities	(4,610)	4,049
Grants payable	(87,445)	701,129
Cash provided by operating transactions	(501,112)	4,975,558
Capital transactions		
Cash used to acquire tangible capital assets	(24,339)	(28,335)
Cash applied to capital transactions	(24,339)	(28,335)
Investing transactions		
Purchase of investments	(1,300,000)	(8,826,260)
Proceeds from disposal and redemption of investments	7,045,917	2,761,822
Cash used by investing transactions	5,745,917	(6,064,438)
Increase (decrease) in cash and cash equivalents	5,220,466	(1,117,215)
Cash and cash equivalents, beginning of year	85,004	1,202,219
Cash and cash equivalents, end of year	$ 5,305,470	$ 85,004

(See accompanying notes to the financial statements)

NOTES TO THE FINANCIAL STATEMENTS

March 31, 2012

1. Establishment of the Foundation

On January 31, 2003, *The Saskatchewan Health Research Foundation Act* (S.S. 2002, c.S-21.1) came into force establishing the Saskatchewan Health Research Foundation (Foundation). The Foundation is responsible for organizing, managing and allocating most provincial health research funding in Saskatchewan and for ensuring that supported research fits with the Province's health research priorities and leads to benefits for health and the health system in Saskatchewan. The Foundation is the lead agency on implementing the provincial Health Research Strategy.

2. Accounting Policies

Pursuant to standards established by the Public Sector Accounting Board (PSAB), the Foundation is classified as an "other government organization." The Foundation uses generally accepted accounting principles applicable to the public sector. The following accounting principles are considered to be significant.

a) Revenue

The Foundation's main revenue for operations is contributions from the Ministry of Health – General Revenue Fund with other revenue coming from partnerships, interest and miscellaneous revenue.

Effective April 1, 2011, the Foundation adopted the PS 3410, Government Transfer standard on a prospective basis without restatement of the 2011 comparative figures.

The adoption of PS 3410 Government Transfers required that grants received by the Foundation be assessed to determine if they meet the requirement for deferral as a liability. If the transfers do not meet the deferral requirements, contributions are recognized as revenue when the transfer is authorized and all eligibility criteria have been met, the amount can be estimated and collection is reasonably assured. Previously, these grants had been deferred and recognized in operations as expenses were incurred. For comparative purposes, the impact to the Foundation as at April 1, 2011, because of this change, is an increase to revenue and a decrease to deferred revenue of $5,408,279 as detailed in the table below:

	Ministry of Health		Ministry of Advanced Education, Employment and Immigration		Total
	Multiple Sclerosis (MS) Clinical Trials	QI Chair	PHSI	Federal Partnerships	
Recognized during 2011-2012	$ 5,027,135	$ 132,000	$ 201,917	$ 47,227	$ 5,408,279

If the deferral requirements are met, contributions are recognized as revenue according to the transfer agreement stipulations and the Foundation's actions and communications.

b) Measurement uncertainty

The preparation of financial statements in accordance with PSAB accounting principles requires the Foundation's management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of commitments at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

c) Tangible capital assets

The recognition and measurement of tangible capital assets is based on their service potential. Purchases of furniture and office equipment over $250 and computer hardware and software over $500 are recorded at cost as a capital asset. Purchases below these amounts are expensed as incurred. Amortization is recorded on a straight-line basis as follows:

Furniture	10 years
Office Equipment	5 years
Computer Hardware and Software	3 years
Leasehold Improvements	length of lease

Normal maintenance and repairs are expensed as incurred.

d) Research grants and awards expense

Grants and awards expense is recorded when eligibility has been determined and the grant and or award has been authorized. Awarded funds are sent to the recipients' home institution to manage and disburse. Funds not spent during the term of a research grant or award are treated as a recovery in the year that this is determined.

Internally administered awards

The Foundation holds annual funding competitions through which applications are adjudicated by experts based on excellence and relevance. Terms vary and are often multi-year. For internally administered multi-year grants and awards, the Foundation assesses eligibility and provides authorization on a yearly basis (see Schedule 3, Schedule of Future Research Funding Commitments).

Externally administered awards

For some partnership programs, the Foundation's partner administers the grants and awards. For example, the Canadian Institutes of Health Research (CIHR) currently administers the Regional Partnership Program (RPP) grants and awards and the Partnership for Health Systems Improvements program (PHSI) grants. For externally administered multi-year grants and awards, the Foundation records the full amount of the expense in the year that authorization for funding is received from CIHR.

e) Investments

Investments are valued at amortized cost.

f) Basis of accounting

The financial statements are prepared using the accrual basis of accounting.

3. Tangible Capital Assets

	Furniture and Equipment	Leasehold Improvements	2012 Totals	2011 Totals
Opening cost	$ 119,263	$ 48,848	$ 168,111	$ 153,763
Additions during the year	24,873	-	24,873	28,335
Disposals during the year	(3,646)	-	(3,646)	(13,987)
Closing cost	140,490	48,848	189,338	168,111
Opening accumulated amortization	73,017	45,141	118,158	106,760
Amortization for the year	23,352	3,707	27,059	25,213
Disposals during the year	(3,113)	-	(3,113)	(13,815)
Closing accumulated amortization	93,256	48,848	142,104	118,158
Net book value of tangible capital assets	$ 47,234	$ -	$ 47,234	$ 49,953

4. Designated Assets

The Foundation is holding $5,639,346 as designated assets to be disbursed on the following programs in future years:

• MS Clinical Trials Initiative	$ 5,012,202
• Quality Improvement Chair	198,000
• Fund Development Feasiblity Study	30,000
• Partners in Health System Improvement	201,917
• Federal Partnerships	197,227

5. Lease Commitments

At March 31, 2012, the Foundation had the following lease commitments:

	2013	2014
Office lease*	$ 35,358	$ -
Postage meter lease	926	154
	$ 36,284	$ 154

*The office lease is due for renewal in 2012-13.

6. Partnerships

The Foundation periodically enters into funding partnerships, often spanning more than one year, to help achieve its goals and objectives. In 2011-12 the Foundation provided research funding through the following partnerships:

a) Saskatchewan – CIHR-RPP

In a partnership that started in 1999 and has been extended to 2013-14, the Foundation provides funds to match funding from the CIHR-RPP on a 1:1 basis to support Saskatchewan researchers and research projects. In 2011-12, the Foundation also used funds from the Ministry of Advanced Education, Employment and Immigration, contributions designated for federal matching opportunities.

b) CIHR-PHSI

Since 2005-06, the Foundation and CIHR have been in partnership to provide funds to support teams of researchers and decision makers interested in conducting applied and policy-relevant health research useful to health system managers and/or policy makers and strengthening the Canadian health care system. Funding is matched on a 1:4 basis by the Foundation and CIHR respectively.

c) Saskatchewan Research Chairs

Since 2009-10, the Foundation has been funding a five-year Saskatchewan Research Chair in Alzheimer Disease and Related Dementia, in a 1:1 funding partnership with the Alzheimer Society of Saskatchewan. The Foundation receives the partner's contribution on a quarterly basis, expenses the chair awards on an annual basis, and sends the partner and Foundation funds together to the award holder's home institution. The Foundation has two other research chair partnerships where the award has not yet been made. Partner funds flow to the Foundation when there is a successful candidate in place.

7. Other Revenue

In 2011-12, other revenue generated by the Foundation included interest of $205,898, recoveries of $253,420, rental revenue of $28,402,and additional internally generated revenues of $4,871.

8. Related Party Transactions

Included in these financial statements are transactions with various Saskatchewan Crown Corporations, ministries, agencies, boards and commissions related to the Foundation by virtue of common control by the Government of Saskatchewan, and non-Crown corporations and enterprises subject to joint control or significant influence by the Government of Saskatchewan (collectively referred to as "related parties").

Routine operating transactions with related parties are recorded at the agreed upon rates charged by those organizations and are settled on normal trade terms. These transactions and amounts outstanding at year-end are as follows:

	2012	2011
Recovery and miscellaneous revenue:		
University of Regina	$ 1,544	$ 5,128
University of Saskatchewan	263,315	47,596
Research grant, administrative and occupancy expenses:		
Capital Pension Plan - employee benefits	44,017	40,057
Saskatchewan Opportunities Corporation – Innovation Place	154,153	154,251
Saskatoon Health Region	155	620
SaskTel	12,367	13,309
University of Regina	778,457	596,893
University of Saskatchewan	4,866,915	4,788,592
Other	2,304	19,181
Accounts receivable	14,230	17,145
Investments	200,000	200,000
Accounts payable and accrued liabilities	534	29,039
Grants payable	5,185,454	5,272,899

The Foundation pays Provincial Sales Tax to the Ministry of Finance on all its taxable purchases. Taxes paid are recorded as part of the cost of those purchases.

Other transactions with related parties and amounts due to or from them are described separately in these financial statements and the notes thereto.

9. Financial Instruments

The Foundation has the following financial instruments: accrued interest receivable, accounts receivable, investments, accounts payable, and grants payable. The following paragraphs disclose the significant aspects of these financial instruments. The Foundation has policies and procedures in place to mitigate the associated risks.

a) Significant terms and conditions

There are no significant terms and conditions associated with the financial instruments, other than investments, that may affect the amount, timing, and certainty of future cash flows. Significant terms and conditions for investments are described separately in these financial statements and the accompanying notes.

b) Interest rate risk

The Foundation is exposed to interest rate risk when the value of its financial instruments fluctuates due to changes in market interest rates. As the Foundation seldom disposes of investments prior to maturity, this risk is minimal.

The Foundation's receivables and payables are non-interest bearing. Due to the short-term nature of these financial instruments, as well as cash and short-term investments, interest rate risk is minimal.

c) Credit risk

The Foundation is exposed to credit risk from potential non-payment of accounts receivable or investment income and principal.

Most of the Foundation's receivables are from the provincial government; therefore the credit risk is minimal.

The Foundation's investments consist of provincial and federal government bonds, promissory notes, treasury bills and bankers acceptances with large Canadian banks. Therefore, credit risk for investments and related accrued interest receivable is minimal.

d) Fair value

For the following financial instruments, the carrying amounts approximate fair value due to their immediate or short-term nature:

Accrued interest receivable

Accounts receivable

Short-term investments

Accounts payable

Grants payable

The fair value of long-term investments is $1,594,859 (2010-11 - $8,397,304) based on the quoted market values.

10. Budget

The operating budget was approved by the Foundation's Board on April 6, 2011.

11. Pension Plan

The Foundation is a participating employer in the Capital Pension Plan, a defined contribution pension plan. Eligible employees make monthly contributions of 6% of gross salary with the Foundation contributing 6.45% of gross salary. The Foundation's financial obligation is limited to making required contributions. During the year, the Foundation's total contributions were $44,905 (2010-11-$40,057).

12. Comparative Information

Certain prior year amounts have been reclassified to conform with the current year's presentation.

SCHEDULE OF EXPENSES BY OBJECT

For the year ended March 31

	2012		2011
	Budget	Actual	Actual
	(Note 10)		(Note 12)
Advertising and promotion	$ 49,500	$ 19,765	$ 32,576
Amortization	26,665	27,059	25,213
Board expenses	47,448	40,702	36,196
Employee benefits	139,561	143,488	117,074
Employee salaries	640,877	692,045	646,468
Grants and awards	7,843,677	5,634,856	5,372,920
Office expenses	80,080	72,280	92,185
Office space	142,000	134,868	137,915
Professional fees	286,668	320,041	205,044
Publications	31,750	31,265	21,182
Review committee expenses	21,304	16,989	14,793
Travel and meetings	59,590	51,954	54,315
	$ 9,409,120	$ 7,185,312	$ 6,755,881

(See accompanying notes to the financial statements)

SCHEDULE OF INVESTMENTS

As at March 31, 2012

	MATURITY DATE	CARRYING VALUE	EFFECTIVE RATE
Cash and cash equivalents:			
Cash		$ 30,893	
TD Waterhouse – cash		5,274,577	
		5,305,470	
Short-term investments:			
Nav Canada	17-Apr-2012	195,149	3.434
Home Trust Company GIC	30-Apr-2012	100,000	2.750
Bank of Nova Scotia GIC	30-Apr-2012	500,000	2.700
Wells Fargo	26-Jun-2012	306,183	5.100
Sk Savings Bonds	15-Jul-2012	200,000	4.200
Wells Fargo	13-Sep-2012	144,855	5.200
Royal Bank of Canada GIC	5-Oct-2012	100,000	1.500
RBC Mortgage Corp GIC	5-Oct-2012	100,000	1.500
BMO Advisors Advan. GIC	5-Oct-2012	100,000	1.500
Royal Trust Company GIC	5-Oct-2012	100,000	1.500
Royal Trust Corp GIC	5-Oct-2012	100,000	1.500
Cdn Western Bank GIC	5-Oct-2012	100,000	1.700
Equitable Trust GIC	5-Oct-2012	100,000	1.770
Peoples Trust GIC	5-Oct-2012	100,000	1.500
Pacific & Western GIC	5-Oct-2012	100,000	1.700
Scotiabank	1-Nov-2012	100,764	1.590
Province of Ontario	2-Dec-2012	412,294	1.945
HSBC Bank Canada GIC	6-Dec-2012	100,000	4.900
Laurentian Bank of Canada GIC	6-Dec-2012	100,000	4.875
Province of British Columbia	18-Dec-2012	419,909	2.540
Ontario Hydro	6-Feb-2013	343,506	2.280
Province of Ontario	7-Feb-2013	343,491	2.280
		4,166,151	
Long-term investments:			
Ontario Hydro	1-Apr-2013	488,684	2.390
Province of Manitoba Allocation	27-Sep-2013	200,000	
TD Mortgage Corp. GIC	8-Nov-2013	100,000	2.000
TD Pacific Mtge Corp. GIC	8-Nov-2013	100,000	2.000
AGF Trust GIC	8-Nov-2013	100,000	2.000
Gov't of Canada	1-Dec-2014	606,175	2.000
		1,594,859	
		$ 11,066,480	

(See accompanying notes to the financial statements)

SCHEDULE OF FUTURE RESEARCH FUNDING COMMITMENTS

As at March 31, 2012

The Future Research Funding commitments at March 31, 2012 were as follows:
Note 2(d)

YEAR	SASKATCHEWAN HEALTH RESEARCH FOUNDATION PROGRAMS	TOTAL
2013	$ 1,778,477	$ 1,778,477
2014	200,000	200,000
2015	200,000	200,000
	$ 2,178,477	$ 2,178,477

(See accompanying notes to the financial statements)

Saskatchewan Health Research Foundation
253 - 111 Research Drive, Atrium Building,
Innovation Place, Saskatoon, SK S7N 3R2 Canada

Ph. 306-975-1680 | Fx. 306-975-1688 | www.shrf.ca